

Radon in Your Water

Radon in your water can increase your risk of cancer. Read this fact sheet to decide if you should test your water for radon.

What is radon?

Radon is a natural element. It is found in soil and rocks all over the world.

Radon:

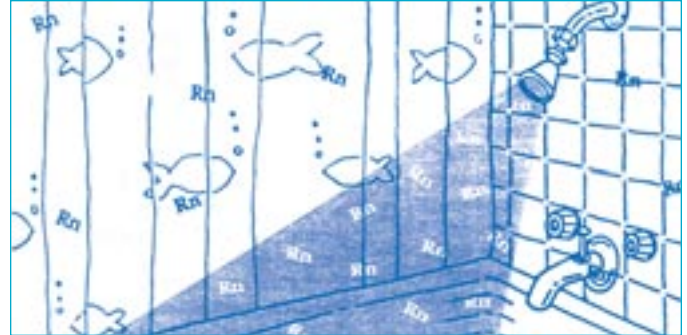
- is a gas
- has no color, smell or taste
- is radioactive
- results from the decay of uranium, another natural element

Radon can enter homes through openings in the basement and, in some cases, through the water supply.

How can radon get into my water?

Radon gas can dissolve and build up in water from underground sources.

- If your water comes from an underground source, such as a well, it may contain radon.
- If your water comes from a lake, river, or reservoir (surface water), radon is not a concern. The radon is released into the air before it reaches your home.



Radon from your water can enter the air you breathe.

How can radon in water affect my health?

Radon is the second leading cause of lung cancer behind cigarette smoking. Radon causes more than 20,000 deaths per year in the United States. If you breathe air that contains radon, your risk of developing lung cancer increases. If you smoke and are exposed to radon, then your risk of developing lung cancer is magnified.

Radon results are usually reported in picocuries per liter (pCi/L). Picocuries per liter is a measure of radioactivity.

The radon in your water can enter the air in your home when you use water for household activities such as showering, washing clothes and cooking. For every 10,000 picocuries per liter (pCi/L) of radon in your water, 1 pCi/L is added to your radon in air level. (This is just an estimate.)

Radon in the water you drink can also contribute to a very small increase in your risk of stomach cancer. However, this risk is almost insignificant compared to your risk of lung cancer from radon.

Should I test my water for radon?

The Connecticut Department of Public Health recommends that you answer the following questions to decide if you should test your home for radon:

Step 1. Have you tested your air for radon?

- If **NO**, then test your air for radon first! The level of radon in your air is more important than the level of radon in your water.
- If **YES**, then think about the radon level in your air before you decide to test the water. Continue to Step Two.

Step 2. Do you have public water or a private well?

- If you have public water, then you probably do not have to worry about radon in your water. If you would like to know the level of radon in your water, you can call your local water authority.
- If you have a private well, then you should move on to Step Three and think about the radon level in your air.

Step 3. What is the radon level in the air in your home?

- If the level of radon in your air was **4 pCi/L or greater**, then you should test your water for radon.
- If the level of radon in your air was **less than 4 pCi/L or you have not tested your air**, you should still consider testing your water. There may be radon in your water that was not reflected in the air test.

For more information on radon, call the Connecticut Department of Public Health Radon Program at 860-509-7367.

When should I reduce radon in my water?

The Connecticut Department of Public Health Radon Program recommends that you reduce radon in your water if the level is at or above 5,000 pCi/L. It should be noted that, currently, there is no law about radon in water.

You should consider what the most significant source of radon is in your home and take care of that first. Usually the biggest source of radon is soil gas.

How can I reduce radon in my water?

There are two ways to reduce radon levels in your water. If the radon level in your water is 5,000 pCi/L or higher, you should have one of the following types of systems installed by a qualified radon mitigator. Contact the Connecticut Department of Public Health Radon Program for a list of qualified radon mitigators.

Granular Activated Carbon (GAC) System

GAC systems are used to reduce radon levels that are between 5,000 and 10,000 pCi/L. This system uses special charcoal filters to remove radon from the water. You need to change the filter in this system according to the manufacturer's recommendations. The average cost for a GAC system is \$1500-\$3000.

Aeration System

Aeration systems are used to reduce radon levels that are above 10,000 pCi/L. This type of system bubbles air through the water so that the radon is released into the air and vented away from your home. The average cost for an aeration system is \$3000-\$5000.